

“Agriculture – All Around, Up and Down”

**Fourth through sixth grade students
2000-2001**

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Pizza, Pyramid, and Process

Overview

The students will discover the processes of food products from the producer to the consumer. They also discuss the varieties of essential foods that are produced through agriculture.

Missouri Show-Me Standards

- To comprehend and evaluate written, visual, and oral presentations and work. (Goal 1, #5)
- To apply acquired information, ideas, and skills to different contexts as students, workers, citizens, and consumers. (Goal 1, #10)
- To identify and apply practices that preserves and enhances the safety and health of self and others. (Goal 4, #7)
- Impact of science, technology, and human activity of resources and the environment. (Science # 8)
- Principles and practices of physical and mental health, such as personal health habits, nutrition, stress management. (Health/Physical Education, #2)

List of Objectives:

After the program the children will be able to:

- Explain food processing in agriculture
- Describe the importance of health habits and nutrition.
- Describe where the ingredients in a pizza come from.

Target Audience: Fourth through sixth grade students

Materials

- Food Pyramid Chart
- Pizza Props
- Worksheets
- Producer to Consumer Chart

Introduction:

Greet the students. Introduce yourself. Explain that the reason why you're here is to teach them a little about agriculture. Explain to them that agriculture is the basis of all processes in our world today, and without agriculture we wouldn't have food, shelter, or clothing. Explain that today you are going to try and relate agriculture to one of their favorite foods. Tell them that the title of the lesson is Pizza, Pyramid, and Process. Explain that the objectives are to help them understand more about food processing in agriculture and the importance of health habits and nutrition. Describe that you chose the fourth through sixth grade audience, as your target audience because you think that this is a good age to work with and, this lesson plan is the easiest for this age group to follow.

Procedures:

Ask the students to raise their hands if they like pizza. Tell the students pizza is one of the most popular foods in America because most of the food groups in the Food Pyramid are found in pizza. Hold up a copy of the USDA Food Pyramid. Explain that each of the foods found in pizza comes from a farm. Explain all the different ingredients that make up a pizza.

Explain to them that each pizza begins with dough. Place the paper dough on the board. Explain that dough is made from wheat that is grown on the farm. The first step in making dough is sending the wheat to a plant, which grinds it into flour. The flour is then sold to a food wholesale distributor. The flour is distributed to retail stores or restaurants. By adding eggs and milk, which also come from farms, to the flour you can make dough. Explain facts about these three ingredients. Explain to them that milk will be used later on in the process of making a pizza. Introduce the Food Pyramid chart and explain that dough belongs in the grains group. Point to the grains group on the chart. Explain that dough provides your body with carbohydrates for energy, and fiber along with vitamins that are good for your body. Tell them they must have 6-11 servings per day.

Explain that pizza sauce is added to the pizza dough. Explain to the student that pizza sauce is made from tomatoes. Place the pizza sauce on to the pizza. Tell them that tomatoes come from the fruit portion of the food pyramid even though it has been mistaken for a vegetable. Pizza sauce is made when tomatoes are processed and spices are added. After tomatoes are harvested (picked) on a farm, they are taken to a plant where they are made into sauces, ketchup, and juice. It is distributed to wholesale dealers who then sell the products to restaurants and grocery stores. The consumer buys it and eats it. Explain that fruits and vegetables both provide your body with carbohydrates, fiber, and the vitamins A and C. Explain to them they must have 2-4 servings of fruit per day. Tell them there will be another fruit to be used on the pizza later.

Explain that cheese is usually the next layer on a pizza, and that cheese comes from the milk of a cow. Place the cheese on the pizza. After milk is taken from the cow, it is checked for germs and bacteria. It is then pasteurized (heated) and processed into cheese. Cheese is cooked and made into blocks or wheels that can be sliced or purchased. Hold up the Food Pyramid and explain that cheese provides your body with calcium to make stronger bones, and they should have 2-3 servings per day. Also, explain the process of from the dairy farm to the consumer.

Explain that meat is the next layer of pizza, and then place the meat toppings on the pizza. Tell the students that sausage and pepperoni are two of the most popular toppings on pizza. They both come from pigs. After pigs reach a certain age and size, they are sent to a butcher. The butcher cuts the pig into different cuts of meat like ribs and pork chops. Some meat is ground up and processed into sausage and pepperoni. The meat must stay cold at all times before it is consumed. Next hold up the Food Pyramid and point to the meat group on the chart. Tell them they must have 2-3 servings of meat per day. Explain to the students that meat is high in protein, iron and Vitamin B. Explain that other proteins include fish products. Anchovies are a fish that make a popular pizza topping. Place the anchovies on the pizza.

Ask the students if they have gardens. Then ask what kinds of things they grow in their gardens. Explain that there are also vegetables that can be used as toppings on a pizza. These include olives, green peppers, onions, and many others. Place these topping in the pizza. Pineapple is another fruit that may be placed on pizzas. Again, hold up the Food Pyramid, point to the fruit group, and remind them the importance of fruit in their diet. Tell them they should have 3-5 servings of vegetables per day.

Go over the worksheet entitled "Which Came First?"

Conclusion:

Tell the students that the pizza is now completed, and you hope they've learned where the ingredients in the pizza are found, and how they are processed. Handout the worksheets and tell them that they can do these on their own. Explain to the students that agriculture can be explained by the phrase, "Agriculture all around, up and down", because agriculture is the basis of all materials. Agriculture is everywhere you look, and it makes up the world we live in. Thank the students for being such good listeners, and tell them that you enjoyed teaching them about agriculture.